Contents to volume 103

Computational physics

Considerations on correlations in shift-register pseudorandom number generators and their removal	1
Degtyarev, L., A. Martynov, S. Medvedev, F. Troyon, L. Villard and R. Gruber The KINX ideal MHD stability code for axisymmetric plasmas with separatrix	10
Zeiri, Y. Study of the lowest energy structure of atomic clusters using a genetic algorithm	28
Martines, E. and R. Cavazzana Parallel implementation of the Iterative Monte Carlo method for the simulation of the presheath of an object immersed in a plasma	43
Dyadkin, I.G. and K.G. Hamilton A study of 64-bit multipliers for Lehmer pseudorandom number generators	103
Gan-Baruch, Z., R. Wegmann, A. Eviatar and H.U. Schmidt A two-ion fluid model with gyrotropic pressures for the comet interaction with the solar wind	131
Marushchenko, N., U. Gasparino, H. Maaßberg and M. Romé Bounce-averaged Fokker-Planck code for the description of ECRH in a periodic magnetic field	145
McDonough, A., A. Panjkov, S. Russo and I.K. Snook Implementation of a molecular dynamics simulation on a transputer array in parallel C	157
Brown, D., H. Minoux and B. Maigret A domain decomposition parallel processing algorithm for molecular dynamics simulations of systems of arbitrary connectivity	170
Teng, Zm., Sj. Cai, Fy. Zhang and J. Zheng A hybrid upwind scheme to reduce the crosswind diffusion inherent in the SG scheme for semiconductor device simulations	187
Hiyama, M. and H. Nakamura Gaussian expansions of the two-center Coulomb functions	197
Computer programs in physics	
Fritzsche, S. Maple procedures for the coupling of angular momenta. I. Data structures and numerical computations	51
Allison, D.C.S. and M.T. Noga Computing the three-dimensional convex hull	74

Los Arcos, J.M. and F. Ortiz kB : a code to determine the ionization quenching function $Q(E)$ as a function of the kB parameter	83
Jemmer, P. and P.J. Knowles Erratum to "Generation of functional derivatives in Kohn-Sham density-functional theory" [Comput. Phys. Commun. 100 (1997) 93-98]	95
Kröger, S. and M. Kröger Erratum to "A program to compute the angular coefficients of the relativistic one-electron hyperfine structure parameters" [Comput. Phys. Commun. 90 (1995) 381–387]	97
Hiyama, M. and H. Nakamura Two-center Coulomb functions	209
Pöschl, W., D. Vretenar and P. Ring Relativistic Hartree-Bogoliubov theory in coordinate space: finite element solution for a nuclear system with spherical symmetry	217
Gianturco, F.A., S. Serna and A.V. Storozhev Quantum calculations of transport properties in molecular gases	251
Fritzsche, S. and I.P. Grant CESD97 - A revised version to expand <i>jj</i> -coupled symmetry functions into determinants	277
Blanco, M.A., A. Martín Pendás and V. Luaña Quantum mechanical cluster calculations of ionic materials: revision 10 of the <i>ab initio</i> Perturbed Ion program	287

